

CLAIMS:

1. A document processing device, comprising:
 - an input receptacle adapted to receive at least two batches of documents, each batch including currency bills and a header card, each header card bearing source
 - 5 identification information identifying the source of the currency bills in the respective batch;
 - at least one output receptacle adapted to receive the currency bills after the currency bills have been evaluated, and adapted to receive the header card;
 - a transport mechanism adapted to transport the currency bills, one at a time, from
 - 10 the input receptacle to the at least one output receptacle along a transport path;
 - an evaluation unit adapted to evaluate the currency bills and distinguish the header card from the currency bills;
 - memory coupled to the evaluation unit for storing batch document information based on evaluating the at least two batches of documents;
 - 15 means for entering into memory source identification information from the header cards, wherein the source identification information is entered into memory before, during, or after evaluating all batches of documents; and
 - a controller coupled to the evaluation unit, the controller being adapted to control operation of the transport mechanism, to control operation of the evaluation unit, and to
 - 20 associate, on a sequential basis, source identification information in memory with batch document information in memory.

2. A method of processing at least two batches of documents, comprising:
 - receiving and evaluating at least two batches of documents;
 - 25 receiving source identification information for each batch on sequential basis before, or after, evaluating documents in the at least two batches;
 - transporting each of the documents, one document at a time, past a document detector to evaluate each document;
 - obtaining batch document information for each batch based on evaluating
 - 30 documents in each respective batch; and

associating, on a sequential basis, batch document information for each batch with source identification information for each batch.

3. A method of processing multiple batches of documents including currency bills
5 and a header card, comprising:

capturing source identification information on a header card in a batch of documents including currency bills to identify the source of the currency bills in the batch of documents;

removing the header card from the batch of documents;

- 10 placing the currency bills without the header card in an input receptacle of a document processing device;

transporting each of the currency bills, one bill at a time, past a currency detector;

evaluating each currency bill to obtain characteristic information associated with a currency bill;

- 15 determining whether each currency bill meets or fails at least one criterion;

directing each currency bill to at least one output receptacle based on the determining; and

directing a separator card to at least one output receptacle to separate documents from consecutive batches.

20

4. A method of processing at least two batches of documents, each of the batches including a header card and currency bills, comprising:

providing at least two batches of documents, each batch including a header card and currency bills associated therewith, each header card including source identification
25 information representative of the source of the currency bills in the batch of documents;

positioning each header card at a predetermined position in each respective batch of documents;

placing the batches of documents in an input receptacle of a document processing device;

- 30 entering into memory of the processing device source identification information from each header card; and

processing substantially all documents from at least two batches before or after entering the source identification information from each batch into memory.

5. A method of processing at least two batches of documents, comprising:
- 5 receiving the at least two batches of documents;
entering into memory of a document processing device source identification information for the at least two batches in a sequence;
loading the at least two batches into the document processing device for multiple batch processing in a sequence consistent with the sequence in which the source identification information was entered into memory;
- 10 after entering the source identification information for the at least two batches into memory, begin transporting the batches in a sequence consistent with the sequence in which the source identification information was entered into memory, one document at a time, through the document processing device to obtain characteristic information from the documents in the at least two batches;
- 15 determining the batch information for each of the at least two batches based on the obtained characteristic information; and
matching on a sequential basis the batch information for each of the at least two batches with the source identification information for each of the at least two batches.
- 20
6. The method of Claim 5, comprising:
- receiving an header card with each of the at least two batches; and
obtaining the source identification information for each of the at least two batches from the header cards before loading the at least two batches into the document processing device.
- 25

7. The method of Claim 6, comprising removing the header cards from the at least two batches before transporting the at least two batches through the document processing device.

30

8. The method of Claim 7, comprising replacing at least one header card with a separator card to separate the at least two batches when the at least two batches are loaded into the document processing device.

5 9. The method of Claim 8, comprising transporting the separator card to an output receptacle of the document processing device and transporting rejected documents to the output receptacle such that the separator card separates rejected documents from the first batch from rejected documents from the second batch.

10 10. The method of Claim 9, comprising successively entering characteristic information for the rejected documents from the first and second batches such that after batch information for the batches are matched with the source identification information, the batch information for each batch reflects the entered characteristic information for the rejected documents.

15

11. The method of Claim 10, wherein successively entering characteristic information for the rejected documents comprises reloading the rejected documents into the document processing device for reprocessing.

20 12. The method of Claim 7, comprising, after removing the header cards, loading the at least two batches without the header cards into the document processing device such that a paddle of the document processing device separates the at least two batches.

13. The method of Claim 12, comprising allowing the paddle to advance during the
25 multiple batch processing.

14. The method of Claim 6, comprising:

loading the at least two batches into the document processing device with at least one of the two header cards such that the header card separates the at least two batches;

30 transporting the header card separating the at least two batches to an output receptacle; and

transporting rejected documents to the output receptacle such that the header card separating the at least two batches separates rejected documents from the first batch from rejected documents from the second batch, wherein the source identification information for each of the at least two batches is entered into memory of the document processing device before transporting the rejected documents to the output receptacle.

15. The method of Claim 5, comprising retrieving from an output receptacle of the document processing device rejected documents, wherein the rejected documents from the first batch are separated from rejected documents of the second batch by a separator card printed by the document processing device during the multiple batch processing.

16. A method of processing at least two batches of documents, comprising:
loading the at least two batches into a document processing device for multiple batch processing;
15 starting transportation of the batches in a sequence, one document at a time, through the document processing device to obtain characteristic information from at least some of the documents in the at least two batches;
determining batch information for each of the at least two batches based on the obtained characteristic information;
20 after determining batch information for each of the at least two batches, entering source identification for each batch into memory in a sequence consistent with the sequence in which the at least two batches were transported through the document processing device; and
matching on a sequential basis the batch information for each of the at least two
25 batches with the source identification information for each of the at least two batches.

17. The method of Claim 16, wherein loading the at least two batches comprises loading the at least two batches with at least one separator card separating the at least two batches.

30

18. The method of Claim 17, comprising directing the separator card to a reject receptacle.

19. The method of Claim 18, comprising obtaining source identification information
5 for one of the at least two batches from the separator card.

20. The method of Claim 16, comprising:
transporting reject documents from the at least two batches of documents to a reject receptacle;
10 printing a separator card; and
transporting the separator card to the reject receptacle to separate reject documents from one batch from reject documents from the other batch.

21. The method of Claim 16, entering source identification information for each
15 batch comprises bar code scanning a plurality header cards respectively associated with the at least two batches.

22. The method of Claim 21, comprising keying into memory rejected documents associated with a first of the at least two batches before bar code scanning the header
20 card associated with a second of the at least two batches.

23. The method of Claim 16, comprising prompting an operator to enter the source identification information associated with a first of the at least two batches after the documents from both the first and second of the at least two batches have been
25 transported through the document processing device.

24. A method of processing at least two batches of documents, the method comprising:

loading the at least two batches into a document processing device for multiple batch processing;

5 transporting the at least two batches in a sequence, one document at a time, through the document processing device to obtain characteristic information from some of the documents;

transporting rejected documents to a reject receptacle;

printing a separator card while multiple batch processing the at least two batches;

10 and

transporting the separator card to the reject receptacle to separate rejected documents from one of the at least two batches from rejected documents from another of the at least two batches.

15 25. The method of Claim 24, comprising entering source identification information associated with each batch into memory before transporting the at least two batches through the document processing device, wherein the information is entered in a sequence consistent with the sequence in which the batches will be transported through the document processing device.

20

26. The method of Claim 25, printing on the separator card source identification information associated with at least one of the one batch and the other batch.

27. The method of Claim 24, comprising loading the at least two batches into the
25 document processing device with two respectively associated header cards, wherein at least one of the cards separates one batch from the other batch prior to transporting the batches through the document processing device.

28. The method of Claim 27, comprising transporting the two header cards to another
30 reject receptacle separate from the reject receptacle receiving the separator card.

29. The method of Claim 28, comprising obtaining source identification information for the at least two batches from the two header cards after the two header cards have been transported to the other receptacle.

5 30. The method of Claim 29, comprising entering into memory of the document processing device the source identification information for the at least two batches in a sequence consistent with the sequence in which the at least two batches were transported through the document processing device.

10 31. The method of Claim 24, comprising entering into memory of the document processing device source identification information for each of the at least two batches, wherein the information is entered in a sequence consistent with the sequence in which the at least two batches were transported through the document processing device.

15 32. The method of Claim 24, wherein loading the at least two batches into the document processing devices comprises positioning the batches such that a paddle of the processing device separates the at least two batches, and the paddle is allowed to advance during multiple batch processing.

20 33. A method of processing at least two batches of documents, the method comprising:

capturing information on a bar code card associated with a first batch of documents to enter into memory of a document processing device source information indicating a source associated with the first batch of documents;

25 loading the first batch of documents into the document processing device;

capturing information on a bar code card associated with a second batch of documents into memory of the document processing device source information indicating a source associated with the second batch of documents;

loading the second batch of documents into the document processing device;

30 after capturing information on the bar code card associated with the first batch and the bar code card associated with the second batch, causing the document

processing device to sequentially transport the first and second batches, one document at a time, through the document processing device;

allowing the document processing device to obtain characteristic information from a plurality of the documents of the first batch and from a plurality of the documents of the second batch to determine batch information for the first batch and batch information for the second batch; and

allowing the document processing device to match on a sequential basis source information associated with the first batch with batch information associated with the first batch.

10

34. In a document processing device, a method of processing at least two batches of documents, comprising:

storing in memory a first source identification information associated with a first batch of documents;

15 storing in memory a second source identification information associated with a second batch of documents;

after storing the first and second source identification information in memory, transporting the first and second batches, one document at a time, through an evaluation region to obtain characteristic information from the documents;

20 determining first batch information associated with the first batch based on characteristic information obtained from documents from the first batch; and

matching, on a sequential basis, the first batch information with the first source identification information.

25 35. In a document processing device, a method of processing at least two batches of documents, comprising:

transporting a first batch and a second batch of documents, one document at a time, through an evaluation region to obtain characteristic information from the documents;

30 determining first batch information associated with the first batch based on characteristic information obtained from documents from the first batch;

determining second batch information associated with the second batch based on characteristic information obtained from documents from the second batch;

after determining the first and second batch information, receiving in memory first source information associated with the first batch of documents; and

5 matching, on a sequential basis, the first batch information with the first source information.

36. A document processing device for multiple batch processing, comprising:

an input receptacle adapted to hold at least two batches of documents and
10 advance the two batches within the input receptacle;

an output receptacle adapted to receive the documents after the documents have been evaluated;

a transport mechanism adapted to transport the documents, one at a time, from the input receptacle to the output receptacle;

15 an evaluation unit adapted to evaluate the documents, wherein the transport mechanism transports the documents past the evaluation unit;

memory coupled to the evaluation unit being adapted to store batch document information for each of the at least two batches based on evaluating the documents, the memory being adapted to store source identification information for each of the at least
20 two batches;

means for entering into memory the source identification information for each of the at least two batches; and

a controller comprising programming for matching, on a sequential basis, the source identification information for each of the at least two batches with batch
25 document information for each of the at least two batches.

37. The device of Claim 36, wherein the source identification information for each of the at least two batches is stored in the memory before the batch document information for each batch is stored, and the programming for matching comprises programming for
30 sequentially stepping through the source identification information for each of the at least two batches.

38. The device of Claim 36, wherein the batch document information for each batch is stored in memory before the source identification information for each of the at least two batches and the programming for matching comprises programming for sequentially stepping through the batch document information for each batch.

39. The device of Claim 36, wherein the input receptacle comprises a movable paddle that advances during multiple batch processing.

40. The device of Claim 36, comprising a reject output receptacle connected to the transport mechanism to receive rejects.

41. The device of Claim 40, comprising a mechanism adapted to send a separator card to the output receptacle to separate rejects from different batches of documents.

42. The device of Claim 41, wherein said mechanism is a printer.

43. A document processing device for multiple batch processing, comprising:
an input receptacle adapted to hold at least two batches of documents;
a plurality of output receptacles adapted to receive the documents after the documents have been evaluated;

a transport mechanism adapted to transport the documents, one at a time, from the input receptacle to the plurality of output receptacles;

an evaluation unit adapted to evaluate the documents, wherein the transport mechanism transports the documents past the evaluation unit and the documents are sorted into the plurality of output receptacles based on evaluation of the documents;

memory coupled to the evaluation unit being adapted to store batch document information for each of the at least two batches based on evaluating the documents and being adapted to store source identification information for each of the at least two batches;

means for entering into memory the source identification information for each of the at least two batches; and

a controller comprising programming for:

storing the source identification information for each of the at least two
5 batches into memory before transporting the at least two batches past the evaluation unit,
and

sequentially stepping through the source identification information in
memory to match, on a sequential basis, the source identification information for each of
the at least two batches with the batch document information for each of the at least two
10 batches.

44. A document processing device for multiple batch processing, comprising:

an input receptacle adapted to hold at least two batches of documents;

a plurality of output receptacles adapted to receive the documents after the
15 documents have been evaluated;

a transport mechanism adapted to transport the documents, one at a time, from the
input receptacle to the plurality of output receptacles;

an evaluation unit adapted to evaluate the documents, wherein the transport
mechanism transports the documents past the evaluation unit and the documents are
20 sorted into the plurality of output receptacles based on evaluation of the documents;

memory coupled to the evaluation unit being adapted to store batch document
information for each of the at least two batches based on evaluating the documents and
being adapted to store source identification information for each of the at least two
batches;

25 means for entering into memory the source identification information for each of
the at least two batches; and

a controller comprising programming for:

storing the batch document information for each of the at least two
batches into memory before the source identification information for each of the at least
30 two batches, and

sequentially stepping through the batch document information in memory to match, on a sequential basis, the batch document information for each of the at least two batches with the source identification information for each of the at least two batches.

5

45. A document processing device for multiple batch processing comprising:
 an input receptacle adapted to hold at least two batches of documents;
 a plurality of output receptacles adapted to receive the documents after the documents have been evaluated;

10

a transport mechanism adapted to transport the documents, one at a time, from the input receptacle to at least one of the plurality of output receptacles;

an evaluation unit adapted to evaluate the documents, wherein the transport mechanism transports the documents past the evaluation unit;

15

memory coupled to the evaluation unit adapted to store batch document information for each of the at least two batches based on evaluating the documents, and being adapted to store source identification information for each of the at least two batches;

a bar code gun coupled to the memory for entering the source identification information into memory; and

20

a controller coupled to the memory and comprising programming for:

allowing the source identification information for the at least two batches to be entered into memory before the at least two batches are transported past the evaluation unit, and

25

sequentially stepping through the source identification information stored in memory to match batch document information with source identification information.

46. The document processing device of Claim 45, comprising a user interface for keying-in reject documents.

30

47. The document processing device of Claim 45, wherein the controller comprises programming for allowing the source identification information for the at least two batches to be entered after the at least two batches are transported past the evaluation unit.

5

48. The document processing device of Claim 47, wherein the controller comprises programming for sequentially stepping through the batch document information for the at least two batches stored in memory to match batch document information with source identification information.

10

49. The document processing device of Claim 45, wherein the controller comprises programming for advancing the at least two batches in the input receptacle during multiple batch processing.

15 50. The document processing device of Claim 45, wherein the plurality of output receptacles includes a reject output receptacle coupled to the transport mechanism to receive reject documents.

20 51. The document processing device of Claim 50, comprising a printer for sending a separator card to the reject output receptacle, wherein the controller comprises programming for sending the separator card to the reject output receptacle to separate rejects from different batches.

25 52. A method of processing multiple batches of documents including currency bills and a header card, comprising:

capturing source identification information on a header card in a batch of documents including currency bills to identify the source of the currency bills in the batch of documents;

30 placing the currency bills with the header card in an input receptacle of a document processing device;

transporting the header card to an offsort receptacle;

transporting each of the currency bills, one bill at a time, past a currency detector;
evaluating each currency bill to obtain characteristic information associated with
a currency bill;

determining whether each currency bill meets or fails at least one criterion;

5 directing each currency bill to at least one output receptacle based on the
determining; and

directing a separator card to at least one output receptacle to separate documents
from consecutive batches.

10 53. The method of claim 52, further comprising comparing the source identification
information to an information library.

54. The method of claim 53, wherein said information library is a database.

15 55. The method of claim 53, wherein said information library is stored in the
document processing device.

56. The method of claim 53, further comprising remotely accessing information from
the information library.

20

57. The method of claim 52, wherein the step of placing is carried out using a
cartridge.

58. The method of claim 52, further comprising printing a set of characters on at least
25 one of the header card, the separator card, and a document from the batch of documents.